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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,603	10/23/2003	Yamaya Kiyohiko	Y06S010	3441

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OMORI & YAGUCHI USA, LLC  
EIGHT PENN CENTER, SUITE 1901  
1628 JOHN F. KENNEDY BOULEVARD  
PHILADELPHIA, PA 19103

EXAMINER
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QIN, JIANCHUN

ART UNIT	PAPER NUMBER
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2837

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/27/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/690,603

Applicant(s)

KIYOHICO, YAMAYA

Examiner

Jianchun Qin

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 November 2006.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3 and 6-11 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-3, 6-9 and 11 is/are rejected.  
7) ☒ Claim(s) 10 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Objection*

1. Claim 8 is objected to because of the following informalities:

Claim 1 recites the limitation "the projecting portion of the sensor". There is insufficient antecedent basis for this limitation in the claims.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3, 6 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Wardley (U.S. Pat. No. 6274801).

With respect to claim 1:

Wardley discloses a method for processing sounds from a stringed instrument (Abstract; Figs. 1 and 2) having strings (106), a vibration plate (102) used to radiate vibration of each string as a sound wave, and a fingerboard (108) used to adjust a pitch of each string, comprising: fixing a sensor (12) or a vibration transmitter (18) to directly

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contact the stringed instrument main body (102 or 114) through a fixing means (16) wherein the fixing means is shaped like a horse shoe and has two parallel members, and spacing between the two parallel members is freely adjustable (Fig. 1; col. 4, lines 22-33 and lines 45-49); pressure contacting the sensor with the vibration plate including the fingerboard to capture a vibration of the vibration plate in a form of a vibration force directly or via the vibration transmitter (Fig. 1; col. 4, lines 22-33); and converting via the sensor the vibration force into electric signals for output (col. 4, lines 15-21).

With respect to claim 2:

Wardley discloses (Abstract; Figs. 1 and 2) a pickup device (10) for sounds from a stringed instrument having in a main body (114) one or more strings (106), a vibration plate (102) used to radiate vibration of each string as a sound wave, and a fingerboard (108) used to adjust a pitch of each string, comprising: a vibration transmitter (18) pressure contacted with the vibration plate of the stringed instrument main body (Fig. 1; col. 4, lines 22-33); a sensor (12) for receiving a vibration force from the vibration transmitter and converting the vibration force into an electric signal (col. 4, lines 15-21); and a fixing means (16) for fixing the vibration transmitter to the stringed instrument main body (Fig. 1; col. 4, lines 22-33 and lines 45-49), wherein the fixing means is shaped like a horse shoe and has two parallel members, and spacing between the two parallel members is freely adjustable (Fig. 1; col. 4, lines 22-33 and lines 45-49).

With respect to claim 3:

The teaching of Wardley further includes: said sensor is pressure-contacted directly with the vibration plate of the stringed instrument main body (Fig. 1; col. 4, lines 22-33 and lines 45-49).

With respect to claim 6:

The teaching of Wardley further includes: wherein mounting angles of the vibration transmitter and the sensor are variable in accordance with the shape of the vibration plate of the stringed instrument main body (Figs. 1 and 2; col. 4, lines 50-57).

With respect to claim 11:

The teaching of Wardley further includes: wherein a putty member such as gypsum, various resins, or synthetic rubber which is relatively soft or is hardened as time elapses is located between the vibration transmitter and the vibration plate of the stringed instrument main body (cols. 3-4, lines 64-6)

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wardley in view of Kamijima et al. (U.S. Pub. No. 20040134332).

With respect to claim 7:

Wardley discloses the pickup device including the subject matter discussed above. Wardley further teaches: the vibration transmitter has a depressed portion formed on its surface (cols. 3-4, lines 64-6).

Wardley does not mention express: the vibration transmitter has a depressed portion formed on its surface and having a concave cross section and the sensor has a blastomeric projecting portion tightly fitted into the depressed portion so that the angles of the vibration transmitter and the sensor are freely adjustable.

Kamijima et al. teach (Figs. 1-3, 7B, 8B, and 9) a sensor device (16) for musical instrument (Abstract; section 0009), including: a vibration transmitter (28), herein the vibration transmitter has a depressed portion formed on its surface and having a concave cross section and the sensor has a blastomeric projecting portion tightly fitted into the depressed portion so that the angles of the vibration transmitter and the sensor are freely adjustable (Figs. 1-3, 7B, 8B, and 9; sections 0039 and 0049).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Wardley, as taught by Kamijima et al., to include a vibration transmitter having a depressed portion formed on its surface and having a concave cross section in order to provide a vibration sensor device for a musical instrument that maintains its position under adverse conditions and does not compromise the integrity of the sound or the feel of the instrument (Kamijima et al., section 0010).

With respect to claim 9:

Wardley discloses the pickup device including the subject matter discussed above except: wherein the fixing means further has a sub-adjusting member for pressure-contacting the vibration transmitter and the sensor with the vibration plate of the stringed instrument main body.

The teaching of Kamijima et al. includes: a fixing means for attaching the sensor device (16) to the musical instrument (Fig. 3), wherein said fixing means includes a sub-adjusting member (22, 24) for pressure-contacting the sensor with the instrument main body (Fig. 3).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the sub-adjusting member of Kamijima et al. into the invention of Wardley in order to provide a more robust mechanism for pressure-contacting the vibration transmitter and the sensor with the vibration plate of the stringed instrument main body. The mere application of a known technique to a specific instance by those skilled in the art would have been obvious.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wardley in view of Baggs (U.S. Pat. No. 4989491).

With respect to claim 8:

Wardley discloses the pickup device including the subject matter discussed above except: wherein the vibration transmitter is a magnetic substance or has a structure in which the magnetic substance is buffed, and the vibration transmitter is attractively attached to the projecting portion of the sensor which is made of the magnetic substance.

Baggs discloses a pickup device for stringed instrument (Abstract; Figs. 1 and 5), including: a vibration transmitter (73), wherein the vibration transmitter has a structure in which a magnetic substance (74) is buffed, and the vibration transmitter is attractively attached to a projecting portion of a sensor (70) which is made of the magnetic substance (Fig. 5; col. 9, lines 18-41; col. 13, lines 18-21).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Wardley, as taught by Baggs, to embed a piece of magnetic material in the vibration transmitter in order to provide a cost effective mechanism for attaching the vibration transmitter 18 to the pickup 12 releasably so that the angle of the vibration transmitter is adjustable (Baggs, col. 9, lines 18-41).

#### ***Allowable Subject Matter***

7. Claim 10 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Reasons for Allowance***

8. The following is a statement of reasons for the indication of allowable subject matter:

The primary reason for the allowance of claim 10 is the inclusion of the limitation that the fixing means has a rotative moving lever one end of which has said sensor and the other end of which is pivotally attached to the fixing means, and a portion of the



rotative moving lever which is pivotally attached to said fixing means has a spring member that always pushes the rotative moving lever toward the vibration plate of the stringed instrument main body. It is this limitation found in the claim, as it is claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes this claim allowable over the prior art.

### ***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

### ***Response to Arguments***

10. Applicant's arguments received 11/03/2006 have been considered but are moot in view of the new ground(s) of rejection.

Claims 1-3, 6-9 and 11 are rejected as new prior art references have been found to teach the claimed invention. Detailed response is given in sections 3, 5 and 6 as set forth above in this Office Action.

### ***Prior Art Citations***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1) Takabayashi (U. S. Pub. No. 20040255762) is entitled "Stringed musical instrument equipped with pickup embedded in bridge and bridge used therein".

2) Suenaga (U. S. Pub. No. 20030188629) is entitled "elelectronic percussion instrument for producing sound at intended loudness and electronic percussion system using the same".

3) Nakaya (U.S. Pub. No. 20030094094) is entitled "Bowed stringed musical instrument for generating electric tones close to acoustic tones".

### ***Contact Information***

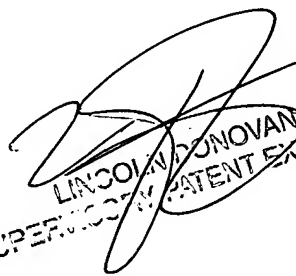
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jianchun Qin whose telephone number is (571) 272-5981. The examiner can normally be reached on 7am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on (571) 272-2107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jianchun Qin  
Examiner  
Art Unit 2837

JQ 

  
LINCOLN DONOVAN  
SUPERVISOR, PATENT EXAMINER